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THE GREATER SPOTTED WOODPECKER IN CONFINEMENT.

BY THE REV. H. A. MACPHERSON, B.A.

ON July 7th, 1883, I received a young living male of the Greater Spotted Woodpecker from Mr. M. Heogh, of Campden, Gloucestershire, who informed me that it had been captured "after leaving the nest, in a bunch of stinging-nettles, on a place called Dovers Hill, two miles from Campden." He had kept it himself "about a fortnight," and believed it to be "about six weeks old" when he sent it to me. I scarcely think that it was quite so old, but it must have been a much earlier bird than those mentioned by Lord Lilford (p. 427) as taken from the nest on July 17th, 1883. The nestling plumage was quite normal, but the flanks were certainly "indistinctly streaked," as Yarrell says is the case in some examples (Brit. Birds, vol. ii. p. 476).

When first placed in my aviary it was unable to stand, the limbs being cramped by long confinement in a shallow box. In a short time, however, it had sufficiently recovered to demolish a saucerful of bread and milk. When I came in, it ran up a strip of cork bark, moving thence to cling to the wires of the cage-dome and its flat corners; presently it assumed a posture of repose, clinging back downwards to the under surface of a broad natural bough placed horizontally across the dome, the head and tail being thus in the same plane. About 7 p.m. it showed symptoms of drowsiness, and buried its head in the

interscapular feathers, clinging to the top of the virgin cork, tail downwards.

A female of the common Nuthatch, inhabiting the same cage, displayed some fear of the stranger, but no sooner did he appear to be asleep than *Sitta* began to tap the cork immediately beneath him; as he was too tired to be easily roused, she ran up to his side and gave him a sudden dig in the ribs with her long bill. *Dendrocopus* awoke with a snap of protest, and his enemy fled precipitately. The Nuthatch was a good deal "put about," because the Woodpecker had seized her favourite roosting-place, but, finding that "might makes right," she betook herself sulkily to the highest bough in the cage.

On July 8th the Woodpecker made a hearty breakfast of *pain au lait*; I threw some mealworms on the cage-bottom, but, though he eyed them covetously, he would not descend to pick them up. Finding that he fenced vigorously with a stick, which I was stirring him up with, it occurred to me to split its extremity and to insert a mealworm into the cleft. He seized the first thus pushed to him, but dropped it with a little cry of surprise; I then offered him six more mealworms, after which he expressed the satisfaction of his "inner man" by tapping vigorously on the bark, not to drive out insects, but purely to express his feelings, just as the Nuthatch beats a "tattoo" if she has swallowed a sumptuous bluebottle. As I write (July 8th, 2 p.m.), the Woodpecker is flitting from one strip of cork to another, uttering a cry which may be rendered "cack, cack"; from time to time he darts his long tongue into the crevices of cork. He takes a special pride in preening the feathers of the under parts; the tail and wings are carefully touched up, the latter being often stretched across his feet. Already he is actively stripping the bark off the dome's perch.

July 9th. It is noticeable that when the Woodpecker wishes to descend, he slides down the cork in jerks, tail downwards, like his wild brethren, in contradistinction to the Nuthatch. Strawberries pushed to him in the cleft-switch he accepts gratefully; a moment ago he nearly choked in trying to swallow a large husk, and, now that his shyness is working off, he accepts the fruit and also mealworms from my fingers.

July 10th. When I came down to breakfast the Woodpecker flew to the side of the cage to meet me, and took six grubs from

my fingers; unlike *Sitta*, he will not descend to pick up a grub if he drops one.

July 10th. Weather very hot, and the Woodpecker is nodding on the cork at 10 a.m., now waking up with a start, then drawing his eyelids apologetically over the bright irides to doze again. He does not kill the mealworms before bolting them, but likes me to crush their heads.

July 11th, on coming down, I called "Jack," and he responded at once and flew to receive mealworms. He rejected some hard-boiled egg, but partook of some crumbled cracknel biscuit, dry. At lunch he tried some sweet biscuit, moistened in my mouth, darting his tongue between the wires to take it off my fingers, and giving me an admonitory peck when the supply threatened to run low.

July 12th. When my landlady brought in the Woodpecker's bread and milk, about 7 a.m., he flew to the cage side to meet her: to tease him she placed the saucer on the hearthrug, in full view of him, and left it; thereupon he set up a clamour of displeasure, like a spoilt child. Despite his boldness at meal-times, the wild instincts are never long forgotten; thus, if I approach him when conversing with any one, as soon as I am near the cage he feels an imperative impulse to duck behind the bough on which he is perching, so as to keep it between him and me, and thus to conceal himself.

July 13th. The Woodpecker has taken the pulp of some black cherries from my finger tips. At 2 p.m. I gave the birds some broken hazel nuts: the Nuthatch stealthily carried one off and placed it in a chink in the cork; *Dendrocopus* "spotted" it at once, and flew to *Sitta* with a cry of glee; away flew *Sitta*, and the robber pretended to consume the kernel. *Sitta's* courage mustering, she betook herself to the cage-floor to pick up the small chips of nut dropped by the Woodpecker, which, after this piece of tyranny was accomplished, refreshed himself with his afternoon bath. I am much struck by the adroit way in which he catches a morsel of food which he has let drop: he does so either on his chest pressed suddenly to the bark to intercept it, or across the tarsi; on more than one occasion I have seen him move a leg to intercept a falling mealworm, and this with unvarying success.

On July 14th he began to kill the mealworms for himself,

passing them across his mandibles until thoroughly crushed, taking special care to break the head.

July 17th. He has cast a few feathers. When the gas is lighted at night he wakes, plumes himself, and then returns to sleep. He has now wrought considerable havoc on the woodwork of the cage, and quite a pile of fresh cork chips lie on the cage-floor. The most important of his excavations are planned and executed before breakfast. He always flutters his pinions when he thinks he should be fed: he prefers anything that I am eating to the food already in his cage.

July 20th. The Woodpecker is now really interested in nuts, and eats them readily. The Nuthatch has now lost her fear of him, and often springs to the bark beside him, though she never stays long; he always makes an unsuccessful dash at her if he thinks that she is within reach. He is now flying actively about the cage, sometimes giving vent to a loud clattering cry, which I have not heard at other times; he often startles the other birds by the abruptness of his movements.

July 22nd. A house-fly has just approached the aviary cage (6.45 p.m.); the Woodpecker became much excited, but failed to secure it. He appeared to be perishing of hunger when I came down this morning, at 7.30 a.m., and accepted some mealworms; he professed great joy at my return from church, and asked for some plum-cake, on which he lunched heavily, but of which he rejected the lemon-peel. Subsequently he grew comatose, and dozed for twenty minutes; then rousing himself, he hammered away on his anvil, making the chips fly merrily, until I went out. Probably Woodpeckers naturally rest a good deal, for they can hardly be always in motion. My bird knows meal-times perfectly, and looks out sharply for five o'clock tea.

July 23rd. The Woodpecker, being rather apathetic and my mealworms growing beautifully less, I reduced him to-day to three grubs; he declined to be put off with "half commons," and demanded the completion of the treat. I offered him a morsel of egg; he seized it, instantly jerked it to the other end of the cage, and the next instant made a ferocious dig into my forefinger. He reproached me for many minutes, and then, by way of revenge, betook himself to the task of disintegrating the framework of his prison.

July 26th. After performing his ablutions, which he always enjoys immensely, the Woodpecker clings to the bark almost motionless until half-dried, when he begins to plume himself. He has now begun to develop secretive tendencies. His supply of bread and milk ran short in my absence yesterday; consequently he had reproached my landlady (who discovered the oversight) with additional bitterness, because there was no five-o'clock tea that day. To-day he has stowed away, in crevices of the cork, all the bread and milk that was left after his breakfast. He has eaten some red currants to-day, their skin being first broken: he generally bolts the skin and pulp together.

July 29th. After lunch to-day I gave the Woodpecker some mealworms, all of which he crushed, even one which had only just shed its skin. "Jack," I said, "do you want a grub, old fellow?" "Kuck, kuck!" he responded; "indeed I do." He then pecked my finger for more. He is, however, losing much of his tameness with me; he has never lost his dread of strangers, my landlady (a precious soul, as fond of the Woodpecker as myself, and ever as solicitous for his comfort as for mine) being the one person besides me whom he trusts. We form, in fact, a "triple alliance"; but if either of the bipeds approach him in unwonted head-gear, his confidence flies at once. He recognises me best by my voice, but knows my footstep also, and calls me if he hears me open the door quietly with my latch-key.

On August 4th I placed the Woodpecker in a small outdoor aviary. Being heavily taxed with parish work, I found less time than ever to bestow on him, and he became very wild and shy, at least comparatively so. When I entered the aviary, I used to see a bright diamond iris peering cautiously round the tree-trunks; if I was alone, he sidled round and took the mealworms from my fingers; if I placed them in a small pan, he would descend to *terra firma* and carry them back to the tree. Only once during all my study of him did he descend to the ground to pick up a dropped insect; the exception occurred in the aviary, and it was after an unsuccessful attempt to catch it across his legs. On the ground, as on lattice-work, he progressed by hops. He generally slept in the corner of a ledge, under the eaves of the aviary. Both in the cage and aviary he occasionally sat crosswise on a bough, a trait that I have noticed in the wild state in Newnham Park, near Oxford. He lived on excellent terms

with the small birds in my aviary, though, when kept indoors, he showed a great hatred to some young Red-backed Shrikes.

I happened to leave Carlisle for a few days in August; when I started on the 23rd the Woodpecker seemed as well as possible, and it was a great sorrow to find him very poorly when I returned on the 29th. As soon as I entered the aviary on the latter day he sidled round the trunk to meet me, but he was manifestly very feeble, suffering from dysentery, which I could not stop.

On the 30th he flew to the ledge over the door to meet me, and took some mealworms with the cry of "ack, ack," which Mr. William Duckworth compared to the cry of a young Jackdaw.

On Sunday, Sept. 2nd, I found him on the same ledge, his head buried in his feathers. He looked up to greet me, with a series of little cries for sympathy, but was too weak to swallow a mealworm: half an hour later I found him dead. His constitution had been weakened by moulting (he died mid-moult), and he may have induced the complaint by fretting for me, as he was so much attached to me. Had I been at home when the attack first occurred, I have little doubt that I should have saved his life; but the diet of bread and milk, nuts, and fruit, which was all that he would take regularly, in addition to insects and a little strawberry-jam, was not sufficiently nourishing for a period so trying as that of the moult. Had he been taken younger, he might have been reared on egg and beef, but unfortunately he would never eat meat or any other nutritive substance.

Examples of this bird have been acquired by the Zoological Society at pretty frequent intervals since 1863; but I am not aware that such specimens, as I have myself seen there, were long-lived.

I have endeavoured to cut down my notes as much as possible; as they now stand I venture to hope that they may not be without interest, since, as Mr. Gould wrote in 1873, "we really know but little respecting the actions of even our commonest Woodpecker."

AN AUTUMN VISIT TO SPITZBERGEN.

BY ALFRED HENEAGE COCKS, M.A., F.Z.S.

(Continued from p. 448.)

WE were so much detained by calms and contrary winds in our little sailing-vessel, during our six weeks' voyage, that our opportunities for observing and collecting were not great. While we saw, on the whole, more mammals than in 1881, the number of birds could hardly have reached one-tenth per cent.; and while the number of species of mammals actually seen in Spitzbergen was less by one (the White Whale) than in 1881, the number of species of birds obtained this year was only thirteen, the species which we believe we saw, but of which we did not obtain any, amounting to ten. The mammals met with were—

Arctic Fox, *Vulpes lagopus*, Linn.; Norwegian name, "Ræv."—Ubiquitous and numerous. Tracks seen in the snow at the outer end of Green Harbour, and two very tame specimens seen at the inner end (Sept. 9th). A fox had taken up its quarters under the house at Cape Thordsen, tenanted by the Swedish Meteorological Expedition before the date of our visit (Sept. 12th), and seemed to consider himself under their protection. When we communicated with the Expedition again, on Sept. 19th, they told us that they had trapped two foxes in the interval. We watched the movements of one for some time at Sassen Bay, on the 16th, and saw him feeding on a dead Reindeer-calf. One came within gunshot of the smack on the morning of Sept. 23rd, when we were lying at anchor in Recherche Bay, and a Norwegian white-whaler who followed us into this shelter had two live cubs on board which had the run of the deck, and it was very pretty to watch them, from our smack, at play.

Polar Bear, *Ursus maritimus*, Linn.; Norwegian, "Is-Bjørn."—Some bear-meat in casks at Green Harbour, a skull seen by M. Rabot at Sassen Bay, and a human grave opened by this species at Recherche Bay, were the only signs of this animal met with by us.

Ringed Seal, *Phoca hispida*, Schreber; Norwegian, "Snad."—As last year, a good many were seen while we were on the Spitzbergen coast, but not enough to be called numerous.

Great Seal, *Phoca barbata*, Fabr.; Norwegian, "Stor Kobbe."—More seen this voyage than in 1881, though that is not saying much. The tenacity of life in this species is remarkable, as recorded before.

Walrus, *Trichechus rosmarus*, Linn.; Norwegian, "Hvalros."—Our cook reported seeing one in Sassen Bay on Sept. 18th; Arnesen would not believe it, but the cook, though a young hand, had been several voyages to the Arctic after Walrus and Seals, and may be supposed to know a Walrus when he saw one; he declared positively that he had seen it, and added that it was apparently an old one, with one long tusk and the other broken. Arnesen told me that one may often see thousands of Seals and Walruses lying on the ice, but directly it comes on to rain they all disappear into the water, but of snow they take no notice. Walrus-tusks, according to Arnesen, fetch in Tromsö 2 kr. (= 2s. 3d.) per lb. English; walrus-hides, 5, 7, to 12 öre per lb. (= from nearly $\frac{3}{4}$ d. to about $2\frac{1}{4}$ d.); and their blubber, 40 kr. (= £2 4s. 6d.) per barrel.

Whales.—In 1881 I was inclined to believe that we had seen four species of "Finner" Whale between the Lofotus and Bear Island; but this voyage from Tromsö northwards, I am inclined to think—influenced by the opinion of our captain, Arnesen—that we only saw *one* species of whale (the Porpoise and White Whale I shall have to mention lower down); at any rate, all that we saw were alike called by him "Blaa Hval," and I could perceive no difference between the various examples. I think there can be no doubt that they were a *Balenoptera*, and it is most probable that they were all *B. Sibbaldii*. On August 27th, immediately to the north of the Norwegian coast, we saw five whales, the last of which was rather a large one, and we could hear him blowing distinctly when more than a mile (English) off, in about lat. $70^{\circ} 40' N.$ Early the next morning Arnesen saw a large whale in about lat. $70^{\circ} 55' N.$; on the morning of Sept. 1st he saw one when we were about thirty-three or thirty-four miles N.W. of Bear Island, and plenty of drift-ice all about. Later in the day, when we had steered W. and afterwards S.W. to avoid a ribbon of ice, and when we had just reached its westernmost point, we saw one close to the ice, and the spout of one or more just beyond. On the 3rd, in about lat. $75^{\circ} 28'$, two were observed; after this none were seen until we had again left Spitzbergen to the

north of us, when, between 2 and 3 a.m. on the 28th, a small one was seen, and a large one about 11.30, our latitude at noon being $75^{\circ} 11' N.$; also a small one about 8 p.m. on the same evening.

Porpoise, *Phocæna communis*, Cuv.; Norwegian, "Nise."*—A "school" reported by Arnesen early on the morning of Sept. 28th, between 2 and 3 a.m., on our way south; lat. at noon, $75^{\circ} 11'$.

We did not see a single White Whale, *Delphinapterus leucas*, Pallas, during the voyage, and the vessels engaged in this "fishery" on the Spitzbergen coast had a very bad season, chiefly, I believe, on account of the ice remaining along the coast until late in the season. Ingebretsen, captain of the 'Hvitfisk,' whose large capture in 1881 I mentioned in my former paper, this season only captured twenty-five! The "skjøite" which followed us into Recherche Bay, had a similar number, and others I was told had even less. One cannot but be very sorry for the crews, who are paid in shares on the "take," and who find themselves, after five months or so of an extremely rough, hard life, with nothing but the small percentage on twenty-five Belugas to repay them, and keep them through the winter, and until they can get afloat again about the following May.

Reindeer, *Rangifer tarandus*, Linn.; Norwegian, "Rensdyr."—There can be no question that the Reindeer of Spitzbergen are much smaller animals than those of Scandinavia. Owing to the enormous amount of fat they possess in autumn, and perhaps, in a lesser degree, owing to their long, almost shaggy coat, the Reindeer of Spitzbergen are rather different looking to those of Scandinavia, and have a somewhat "cart-horsey" or "cobby" appearance. The long winter hairs are nearly white, and these, thickly interspersed with the rest of the coat, make the colour of the Reindeer rather silver-grey. The following are the lengths of Reindeer which I measured as soon as shot, before they had stiffened:—Males, 59 to 62 in.; † females, 53 to $63\frac{1}{2}$ in.; ‡ male calf (September), $51\frac{1}{2}$ in.; female calves (September), $45\frac{1}{2}$ to $48\frac{1}{2}$ in. I am rather ashamed of having calves to record, but personally

* The Greenland name "Nisa," given by Bell, must surely have been adopted from the Danish.

† No particularly good buck was obtained, and out of the large number of deer met with only one really good one was seen (by M. Rabot).

‡ This specimen was of unusual length, most of the specimens being under 60 in.

I only shot one calf, which, in the momentary glimpse as it was making away, I mistook for a sizeable animal. Cast antlers, besides living deer, were very numerous at Sassen Bay, while at Cape Thordsen, only a few miles distant, we found numerous cast-horns, but live deer—according to Lieut. Stjernspetz, of the Swedish Meteorological Expedition—were entirely absent. I have tried to ascertain some constant point of difference between horns from this country and Scandinavia, but can only say that the horns, like the animals that bear them, never attain the size in Spitzbergen that they do in Scandinavia, and a series of horns from Spitzbergen show rather a longer interval between the brow and next tine, and a greater bend backwards at the point whence the latter tine starts; but these points are only perceptible in a series, and are worth nothing in determining the locality of a single specimen. One doe obtained by us had only one horn; another had the horns, as it were, placed the wrong way forwards, the convex side being to the front, and the only tine on each projecting from the back of the horn. I suppose that the apparent beam is really the brow-tine, and the apparent tine is really the beam.

The following were the species of birds obtained by us in Spitzbergen in 1882:—

Ptarmigan, *Lagopus hemileucurus*, Gould; Norwegian, "Rype."*
—When we visited the Swedish Meteorological Expedition at Cape Thordsen, we found that Lieut. Stjernspetz had shot about eleven on September 10th, of which he most kindly gave us four, and on our calling in at Cape Thordsen again we found that he had seen four more on September 18th, and had bagged them all. They are far larger in the body than the common European Ptarmigan, and having in the autumn a layer of fat fully a sixteenth of an inch thick over the whole body, presented a *bonne bouche* almost worth an alderman's while to go all the way to taste. At Sassen Bay, on September 14th, we found a covey of ten Ptarmigan, and secured five, and later in the day a single bird; plenty of their tracks were seen subsequently in the snow, but no birds. The specimens which I brought home this last season (killed in

* The European Ptarmigan are distinguished from the Willow Grouse by being called "Fjeld-Rype" (in Gudbrandsdalen "Fjeld-Skarv"), but there being only one species in Spitzbergen they are simply called "Rype."

September) are much more advanced towards winter plumage than those obtained in 1881 (at the end of July), though still by no means in good feather. Specimen No. 1, killed by Lieut. Stjernspetz at Cape Thordsen on Sept. 10th, has only three coloured feathers remaining on the under side—one on the throat and two on the upper part of the breast; No. 3 (probably a forward male bird of the year) has only about a dozen, in the same positions, with two or three coloured feathers on the sides under the wings; and the others have rather more, down to No. 4 (young), which is only white on the belly, quill-feathers of the wings, and upper wing-coverts. No. 6 has the majority of the feathers on the back coloured, while Nos. 1 and 3 have only a few coloured feathers remaining. All the specimens, except No. 1, were shot by me at Sassen Bay on Sept. 14th. They have two cæca given off about four inches above the rectum, and each over a foot long. The measurements of wings given by Messrs. Dresser and Sharpe ('Birds of Europe') vary between 8·7 and 9·1 inches. The wings of the specimens I brought home last year measure as follows (the right wing being in each case measured):—No. 1 (male), $8\frac{7}{8}$ in.; No. 2 (male), 9 in.; No. 3 (young male), $8\frac{1}{2}$ in.; No. 4 (pull.), $7\frac{3}{4}$ in.; No. 5 (female), $8\frac{1}{2}$ in.; No. 6 (male), $8\frac{7}{8}$ in. The length of the wings of my specimens of 1881 was given in my paper in 'The Zoologist' for 1882 as "about $9\frac{1}{2}$ inches." This should have been "about 9 inches." The only skin of the Willow Grouse I have by me (a good male specimen) measures $8\frac{5}{8}$ inches in the wing. The Common Ptarmigan measures, according to Dresser, from 7·2 to 7·8 inches in the wing. My specimens measure between $7\frac{1}{4}$ and $7\frac{3}{8}$ inches. The following are the measurements of some sterna:—*L. hemileucurus*, length of keel, following the curve, No. 1, $2\frac{5}{8}$ in.; No. 2, $2\frac{3}{8}$ in.; No. 3, $2\frac{1}{2}$ in.; No. 4 (the sternum of this young specimen is not yet fully ossified); No. 5, $2\frac{5}{8}$ in.; No. 6, $2\frac{1}{8}$ in. Length in a straight line about one-eighth of an inch less than the above measurements. *L. mutus*, keel following the curve, No. 1 (female), $2\frac{11}{16}$ in.; No. 2 (female), 3 in.; in a straight line, No. 1, $2\frac{11}{16}$ in.; No. 2, $2\frac{3}{4}$ in. *L. subalpina*, male, keel following the curve, $3\frac{1}{2}$ in.; in a straight line, $3\frac{5}{16}$ in. Malmgren (quoted by Dresser) says their food consists of *Saxifragæ*, *Salix polaris*, flowers, flower-buds, and leaves of *Dryas octopetala*, and "in its crop I found nothing but fresh remains of *Dryas*." I brought home a chaotic mass from the crops and stomachs of Spitzbergen

Ptarmigan, which I have submitted (together with such plants as I collected) to Prof. Oliver, of Kew. He has kindly written me word that the "dominant remains belong apparently to *Cerastium* and *Draba*." I have since had the remains sown, but so far there has been no result.

Purple Sandpiper, *Tringa maritima*, Linn.—Twice during the afternoon of August 29th, just after we had cleared the coast of Norway, a Purple Sandpiper flew close round the smack and seemed to wish to alight on board, suggesting the idea that it might be tired after migration from Spitzbergen. This species formed an exception to the general rule, and was perhaps seen in larger numbers than in 1881, though it may have been owing to the fact that having found out that they were excellent eating (as good as Snipe they seemed to us) we rather cultivated their acquaintance, instead of ignoring their presence, for oddly enough they stood the indifferent *cuisine* of our smack better than larger birds; our largest bag being three dozen, shot in Recherche Bay, Sept. 22nd.

Arctic Tern, *Sterna macrura*, Naum.; Norwegian, "Tenne" (Dictionary, "Terne").—About a dozen on Sept. 1st, near Bear Island; a good many—almost all adults—in Green Harbour on Sept. 9th, after which I have no note of so much as a single Tern, and have no recollection of seeing any.

Kittiwake, *Rissa tridactyla*, Linn.; Norwegian, "Krykja" (Dictionary, "Krykke").—Though not otherwise than common, were nothing like so numerous or generally distributed as on my former voyage. On several days none at all were seen, and on others only "one or two" to "a few."

Glaucous Gull, *Larus glaucus*, Gm.; Norwegian, "Graa-Maake," "Stor-Maake" (pronounced "Maase").—A good many seen when near Bear Island on Sept. 1st, a large majority being young of the previous year. Two or three off Edge's Land on the 5th. A few seen at intervals during the rest of the time we were in Spitzbergen, the last being two immature specimens on Sept. 30th, when at sea in about lat. 73°. A bird of the year, which was slightly wounded by M. Rabot in Recherche Bay on Sept. 24th, was kept on board alive, and taken home by M. Rabot on his return to Paris, and presented by him to the Jardin des Plantes, where, as he lately wrote me word, it continues to flourish.

Richardson's Skua, *Stercorarius crepidatus*, Vieillot; Norwegian, "Tyvjo."*—There were several in the neighbourhood of Bear Island on Sept. 1st; two or three on the 3rd, midway between Bear Island and South Cape; two off Whale Point, Edge's Land, on the 5th; and others every now and then afterwards. The last we saw were two or three some few miles north of the Norwegian coast, on Oct. 2nd. A bird of the year, shot on Sept. 15th, is very different from the specimen described by Dresser ('Birds of Europe'), having no "warm ochreous" colour on the crown (or elsewhere), but agrees very tolerably with the description in Yarrell (Brit. Birds, 3rd edit. p. 633), except that it has a small light-coloured patch immediately under the lower mandible, and the lower part of the breast and the belly are light coloured.

Fulmar Petrel, *Fulmarus glacialis*, Dresser ('Birds of Europe'); Norwegian, "Hav Hest."—Began to see Fulmars as we cleared the Norwegian coast, on August 27th, and they were numerous by a few hours later, when we had passed the last point of the coast; after that we saw each day a varying number, which decreased as we approached the Norwegian coast on our homeward passage, and we saw the last—a solitary bird—two hours before sighting land on October 3rd. Out of the thousands of Fulmars met with in 1881 I came to the conclusion that we had not met with so much as one fully adult example. This voyage I saw several, and brought home one example that I supposed to be adult; but even this does not agree with the descriptions in Yarrell (3rd edit.) and Dresser. The bill is very slightly lighter-coloured than that of the apparently youngest specimen brought home in 1881; head and neck, all round, dirty white; breast, belly, and all the under surface of the body, the same—doubtless partly the result of staining, but the feathers could never, I think, have been "pure white" (as Yarrell's description); tail-coverts very light pearl-grey; tail itself almost white, but with a tinge of pearl-grey; the back and wings a lighter shade than my former specimens, but hardly "pearl-grey"—a "dirty pearl-grey" perhaps expresses it; the tips of the primaries darker, not differing from the other specimens.

* The name "Struntjager," mentioned by Nordenskiöld, is known to the ice-sea men, but I never heard any name but "Tyvjo" used.

Eider Duck, *Somateria mollissima*, Fleming; Norwegian, "Eder," "Ederfugl," or "E'er."—Just after passing South Cape, going northwards, a good many ducks and young were met, as if making southwards; after that a few were seen on some four occasions, forming a great contrast to the state of the case in the summer of 1881. The only drakes noticed were those immature examples in Recherche Bay on Sept. 22nd. The flocks with numerous drakes seen in Vaudvaag, on the north coast of Norway, were doubtless natives of that neighbourhood.

Red-throated Diver, *Colymbus septentrionalis*, Linn.; Norwegian, "Lom."*—Specimens of *Colymbus* were not infrequent this year, being one of the few birds of which more were seen this voyage than last, when only one was met with. I obtained one of a pair—a small adult female—in Green Harbour on Sept. 9th. Capt. Steenersen, of the 'Isbjörn,' told me he shot one (I suppose this species) the previous week; and Lieut. Stjernspetz shot one at Cape Thordsen on Sept. 10th, which I saw when we were there on the 12th. We saw several more Divers at Green Harbour on Sept. 9th, probably of this species; one on the 13th at Sassen Bay, and four or five others, probably of this species, while we remained at anchor there.

Mandt's Guillemot, *Uria Mandti*, Dresser ('Birds of Europe'); *Cephus Mandti*, Newton ('Ibis,' 1865); Norwegian, "Tejste."—A solitary young one was the first of this species seen this voyage, near the ice off Whale's Point, the south-west corner of Edge's Land, on Sept. 5th. Next day, when standing in a S.W. direction from Stor Fjord for the South Cape, four young birds were seen, and later in the day one adult, the first during the voyage. None seen by me in Green Harbour on Sept. 9th, but M. Rabot obtained a young example. The next day, while beating up Is Fjord, we saw three young ones. On the 11th, while still beating up the Fjord, M. Rabot and I each secured a young specimen; four or five, all young, were seen. A few young ones seen in Sassen Bay on Sept. 14th. In Recherche Bay, on Sept. 22nd, I secured another young specimen, and could have shot several others; saw altogether a dozen or more young ones. One, while we were

* This name is also used for the Black-throated species, which is distinguished as the "Stor-Lom," the present species being called "Smaa-Lom," while the Great Northern Diver is not looked upon as a "Lom" at all, but known as "Imber."

lying on our oars waiting for the reappearance of a Seal, swam up within reach of an oar, and remained there without any fear. I believe I also saw one adult example; I am tolerably sure that all the others were young, and not adults in winter dress. Early on the morning of the 24th—still in Recherche Bay—I saw five young ones together, and later M. Rabot obtained another young example from the deck; and later again we saw three or four young ones in the Fjord. This very scanty list shows that the adult birds of this species had almost entirely left Spitzbergen before the date of our arrival; the few young ones met with were, I suppose, late birds left by the parents to find their own way south when sufficiently grown to attempt it. The black Guillemots seen off the Norwegian coast at the beginning and end of the voyage were, no doubt, *Uria grylle*, though where the present species goes to for the winter is one of the innumerable things not yet known. Do they frequent the northern coast of Russia,—i. e. the land to the east of Norway,—or do they keep to the edge of the pack, in such situations as the surroundings are favourable? Certainly this is not the case with the portion of the pack-edge approached by us off Edge's Land, but there the edge was rotten, and the surroundings may therefore not have been favourable.

Brünnich's Guillemot, *Alca Bruennichi*, Dresser ('Birds of Europe'); Norwegian, "Alke."—The extremely small number of birds of this and the next species was one of the most noticeable features of this voyage. Two old Guillemots heard calling to their young at sea, lat. $71^{\circ} 21'$, on August 28th, were very probably of the common species. About half-a-dozen seen in the neighbourhood of Bear Island, on Sept. 1st, were probably of the present species. On Sept. 2nd one was seen; on the 3rd five or six were seen, one of which was a young bird; on the 8th, one; on the 10th, one, and young (perhaps two of each); on the 19th, a couple; on the 25th, one; 26th, one; 27th, two; 28th, several; on the 29th, a good many, including one with white throat; and one slightly grey, seen near Bear Island, may have been of either this or the common species, to which all seen subsequently probably belonged. These few stragglers formed a remarkable contrast to the millions in those regions during the summer.

Little Auk, *Mergulus alle*, Linn.; Norwegian, "Alke-Konge."—Two or three dozen seen when off Bear Island, on Sept. 1st; on the 3rd and 4th, a few each day; on the 5th, off Edge's Land, we

saw two or three dozen. No others were seen until the 22nd, when I saw a single example in Recherche Bay; this specimen, which I secured, has the throat in a transition state between the black of summer and white of winter. On the 27th nine were seen at sea, about lat. $75^{\circ} 30'$. Not one young one of this species was seen. The same remark applies to this species as to the last named.

Northern Puffin, *Fratercula glacialis*, Leach; Norwegian colloquial, "Lun" (Dictionary, "Lunde").—Some Puffins seen immediately north of the Norwegian coast on August 27th were probably of the common species, as also a couple seen the next day. A solitary Puffin seen on the 31st, in about lat. 74° , may very possibly have been of the Northern species. On the evening of Sept. 2nd, in about lat. 75° , one that was apparently charmed by our skipper's accordion was without doubt a Northern Puffin. A single bird seen off the ice surrounding Edge's Land on Sept. 5th; after that we saw one on the 8th, two or three on the 10th, one on the 11th, one on the 15th, two shot on the 16th; and on the 19th several birds in the distance were probably of this species.

NOTES AND QUERIES.


American Ornithologists' Union.—The founding of an American Ornithologists' Union, during the past autumn, must be recorded as an important event in the progress of ornithological science. On the 26th of September last about twenty of the most prominent ornithologists of the United States and Canada assembled in the Library of the American Museum of Natural History at Central Park, New York, and founded a society to be known as the American Ornithologists' Union. A constitution was adopted, and the following officers were elected:—President, Mr. J. A. Allen; Vice-Presidents, Dr. Elliott Coues and Mr. Robert Ridgway; Secretary and Treasurer, Dr. C. Hart Merriam. The founders of the Union are:—Messrs. J. A. Allen (Cambridge, Mass.), C. Aldrich, Prof. S. F. Baird, H. B. Bailey, C. F. Batchelder, Capt. C. E. Bendire, E. P. Bicknell, Wm. Brewster, Nathan Clifford Brown, Montague Chamberlain, Chas. B. Cory, Dr. Elliott Coues, D. G. Elliot, Dr. A. K. Fisher, Dr. J. B. Holder, Thomas Mcllwraith, Dr. Edgar A. Mearns, Dr. C. Hart Merriam, Dr. D. W. Prentiss, H. A. Purdie, Robert Ridgway, Dr. R. W. Shufeldt, and Dr. J. M. Wheaton. The constitution states that:—"The Union shall consist of Active, Foreign, Corresponding, and Associate members. Active

members shall be residents of the United States or Canada, and shall be limited to fifty in number. Foreign members shall be non-residents of the United States or Canada, and shall be limited to twenty-five in number. Corresponding members may be natives of any country, and shall be limited to one hundred in number. Associate members shall be residents of the United States or Canada, and shall not be limited in number." The Union is intended to be a somewhat exclusive body, and the position of Active membership is the highest honour to which an American ornithologist can attain. The Associate members are selected from the large amateur element, represented in all parts of North America, and constitute the body from which Active members are hereafter to be chosen. In addition to the founders already mentioned, the following named gentlemen were elected to Active membership:—W. B. Barrows, Prof. F. E. C. Beal, L. Belding, J. S. Cooper, Ruthven Deane, S. A. Forbes, Prof. Theo. N. Gill, Col. N. S. Goss, Geo. Bird Grinnell, H. W. Henshaw, J. Amory Jeffries, F. C. King, J. K. Kidder, Dr. F. W. Langdon, Geo. N. Lawrence, Newbold T. Lawrence, Dr. J. C. Merrill, E. W. Nelson, Herr Nehrling, T. S. Roberts, J. H. Sage, W. E. Saunders, G. B. Sennett, and W. E. D. Scott. The Council of the Union consists of the officers, *ex officio*, and of Prof. S. F. Baird, Mr. G. N. Lawrence, Mr. Wm. Brewster, Mr. H. W. Henshaw, and Mr. Montague Chamberlain. Six committees were appointed as follows:—(1) *The Classification and Nomenclature of North American Birds*: Messrs. Ridgway, Allen, Brewster, Henshaw, Coues. (2) *The Migration of Birds*: Messrs. Merriam, Brown, Purdie, Wheaton, Chamberlain, Grinnell, Henshaw, Cory, Merrill, Fisher, Mearns, Mellwraith. (3) *Avian Anatomy*: Messrs. Shufeldt, Merriam, Jeffries, Coues. (4) *Oology*: Messrs. Bendire, Bailey, Brewster, Ridgway, Merrill. (5) *Faunal Areas*: Messrs. Allen, Ridgway, Bicknell, Merriam, Fisher, Mearns. (6) *Eligibility or Ineligibility of the English House Sparrow in North America*: Messrs. Holder, Purdie, Chamberlain, Brown, Bicknell. The following eminent naturalists were elected Foreign members:—T. H. Huxley, Alfred Russel Wallace, W. K. Parker, J. B. Barboza du Bocage, H. E. Dresser, Otto Finsch, H. H. Giglioli, Gustav Hartlaub, Allan O. Hume, Alfred Newton, August von Pelzeln, Tommaso Salvadori, Osbert Salvin, P. L. Selater, R. B. Sharpe, J. H. Gurney, sen., John Gundlach, H. Schlegel, J. Cabanis, Dr. Krause, Alphonse Milne-Edwards. About twenty Corresponding and eighty Associate Members were also elected. Amongst the Corresponding Members are Count von Berlepsch, Capt. Blakiston, Messrs. J. A. Harvie Brown, Walter Buller, Robert Collett, Pere A. David, J. J. Dagleish, Percy E. Freke, F. D. Godman, A. Grandidier, J. H. Gurney, jun., J. E. Harting, J. D. Ogilvy, Dr. E. Oustalet, Prof. Palmen, W. B. Pryer, Howard Saunders, Henry Seebohm, and H. T. Wharton. It was evident from the first that this convention was not called in the interest of any faction,

and the harmony and evident good will that characterised all its actions and deliberations proved the unity of purpose of its founders. While the revision of the classification and nomenclature of North American birds is one of the avowed objects of the organization, it is equally certain that much other good will be accomplished by it. Indeed it is safe to say that the founding of the American Ornithologists' Union marks the beginning of a new era in the progress of Ornithology in this country, and that it will give an impetus to this science such as it has not received since the publication of Prof. Baird's great work in 1859.

Game killed on the Railway.—In continuation of my remarks hereon (Zool. 1883, p. 259), I may add that I have ascertained from two intelligent engine-drivers that the destruction of game during the year on some lines—*e.g.* the Glasgow and South-Western—must be very considerable. Mr. Graham tells me that on Sept. 30th he and his fireman secured a brace of hares, and that he has procured both hares and rabbits on various occasions. The hare seems to lose his head entirely when on the line, and will course two miles before the engine rather than turn. When, however, the body of the engine is rushing over it, the hare is sure to make a bolt right or left, and is usually run over by a wheel. Hares are killed chiefly in the early morning. Mr. Graham has often knocked down part of a covey of Partridges with his locomotive, and tells me that they lie close to the line until the train is near, when they rise in alarm close to the engine. Mr. Sharpe independently confirms the foregoing, but tells me that the plate-layers pick up most of the game, as under existing regulations the old custom of stopping a goods train to pick up a prize has been almost put a stop to. Mr. Sharpe says that young Partridges suffer most; they are fond of the railway-line,—collecting grains of gravel there, as he believes,—and are much exposed to danger. Quite recently four were knocked down out of a covey, not many miles from Carlisle. Other victims, within Mr. Sharpe's experience, have been Pheasants, and also Tawny Owls, one of which was found alive in the ash-pan of a locomotive. Amongst mammals, the chief victims are house cats and brown rats. I knew myself of a number of water rats being run over near Oxford, when crossing the line from one ditch to another.—H. A. MACPHERSON (Carlisle).

An Ornithologist's Sling.—I have invented an elastic sling with a pistol grip, which has several times contested favourably with the bow and arrow. It is about seven inches long by four inches wide, and weighs about five ounces. The skilful use of this weapon (anti-bow) is so easily learned that it surprises me that it is not used in the place of the bow. One of these anti-bows will send a No. 3 buckshot 400 yards (measured on a target range for Winchester rifles), about as far as an arrow has ever been shot from a bow. I have killed three bats in succession at dusk while they

were flying swiftly, not going more than a rod at any time before turning off in a sharp angle. This irregular flight rendered them very difficult targets to hit, and taking aim and shooting were almost instantaneous. I have obtained 190 species of birds with the anti-bow, including, besides Insessores, partridges, quail, and  and several snipe and woodcock.—ANTI-BOW (Brooklyn).—‘*Forest and Stream.*’

BIRDS.

Variation in Nests of Common Birds: singular Nests taken in Kent.—In the spring of the present year I amused myself by collecting, for comparison, some of the nests of our common birds; and I was struck at the great variation which they exhibited both in form, and in the materials used in their construction. As I am not aware that special attention has been directed to the frequency of this variability; it may be interesting to mention a few instances. I took a large nest of the Robin, over five inches in diameter, from ivy upon the front of a house; this nest is strongly built of fine roots, bass, coarse hair, a few withered grasses, and a little moss, firmly interwoven; the back wall of the nest is about two inches in thickness, gradually diminishing towards the front, which is covered with dead oak-leaves, giving it the appearance of a Nightingale's nest; it contains six eggs, almost uniform in tint, the large end of a pale russet tint, growing gradually paler towards the smaller end; no distinct mottling is visible, but two or three isolated dark brown points can be seen with a lens on some of the eggs. This nest forms a marked contrast to one which I took two or three years ago out of a hole in an apple-tree; the latter is semicircular in form, and is composed of moss and fine root-fibre, lined with hair, fibre, and two or three small pieces of withered grass. The Nightingale was very common during the present year, but I only twice stumbled across the nests; in both cases they were normal in structure and position, but last year I found the nest built fully eighteen inches from the ground in a matted bush of furze and bramble; about eight years ago I saw a nest without eggs in a stunted hawthorn, nearly two feet from the ground. I obtained one nest of the Willow Wren in which the dome-like covering was wholly absent; the nest was in a most singular position, being placed upon the earth under a gooseberry bush in an orchard, one of the rough clods somewhat overhanging it, and thus rendering the completion of the nest unnecessary. This nest is composed almost entirely of slender dry grasses, thickly lined inside with dark soft feathers; it contains four eggs, which are unusually well marked with large red-brown spots. I have noticed that where eggs are more than usually exposed to light they are always better marked than those in less exposed situations, while those laid in holes are frequently colourless. The *Strigidae*, *Cinclidæ*, *Hirundinidæ*, *Cypselidæ*, *Picidæ*, and *Alcedinidæ* may be cited as examples of the latter

class, though by no means the only ones, whilst the *Columbidæ* may be regarded as exceptions to the general rule, although *Columba ænas* frequently deposits its eggs in holes of pollards and rabbit-burrows. Amongst the British *Hirundinidæ*, as is well known, the Swallow alone has spotted eggs, and these I have on several occasions noticed to be more heavily marked when the light had direct access to the top of the nest than when it was built under the rafters of darkened barns or deep down in chimneys. I can, however, offer no suggestion in explanation of these apparently rapidly acquired modifications in the same species, though it is possible that the absence of colour in the eggs of birds which habitually breed in the dark—as *Cotyle riparia*—may have been acquired to render them more conspicuous to the parent birds, and the general use of white feathers by the Sand Martin may be ascribed to the same cause. I took a cup-shaped nest, apparently referable to the Spotted Flycatcher in a high hawthorn-hedge bounding a private garden. This nest is formed of slender roots, moss, and fine bleached grass-stems, compacted with spider's web, and is lined internally—but most thickly towards the bottom—with reddish hair, amongst which a few coarse black horse-hairs are twisted; the cavity is unusually deep; the nest contains only two eggs, rather large for the species, of a pale green tint, sparsely spotted with russet, excepting at the large end, where they become denser and form a mottled patch; a similar egg was lent to me for illustration by Mr. Bidwell. Excepting in strength and size, I have observed little variation in the nests of the Greenfinch, the principal differences consisting, so far as I have seen, in the presence or absence of wool, the substitution of fine fibre for hair in the lining, and the partial substitution of bleached grasses for twigs and coarse roots in the external structure. The eggs, however, vary much more, a clutch of five in one of my nests being zoned with dull blood-red or dark russet mottling, upon which are a few short darker red-brown linear markings. In four nests of the Chaffinch, taken during the present year, I observe little variation, excepting that one of them is thickly lined within with thistle-down, and a second has the wall on one side very narrow and adorned with a single very jaunty white feather; last year, however, I found a very aberrant nest, somewhat roughly constructed of roots and fibre, with very little adornment of moss and lichen, but a fair sprinkling of fine worsted; the interior is lined with thistle-down and hair, the latter being, as usual, most prominent. A large nest, undoubtedly of some species of Finch, was pointed out to me by a lady friend in a laurel-bush in her garden. This nest was deserted and contained only one egg, very similar to that of the Chaffinch; the structure is as large and strong as that of an old Greenfinch, and is formed of densely matted roots and fibre, a little moss, the flower-heads of various grasses, and a few stout twigs; towards the inside a little wool is introduced amongst the roots, and this again

appears at the bottom of the cup; the inner walls, however, are lined with a combination of a little wool, a quantity of black horse-hair and a twisted black feather, the quill of which projects from the centre of the margin. I have never seen a nest at all resembling it: although the egg would do fairly well for that of the Chaffinch, the nest is totally dissimilar. I took the nest on the 4th June, and it had then been deserted for about eight days. The nest of the Linnet is more variable than that of the Greenfinch. Of five nests which I took only one had any moss in its construction; this one is somewhat slightly built for the species, but the walls are strengthened with coarse straws, evidently selected from a dunghill; the second, excepting that it is not so deep, is not at all unlike a small nest of the Yellow Bunting; its construction is, however, decidedly firmer, and the grasses used in the walls are similar to what one usually sees in the nest of the Greater White-throat; the third nest is untidy, loosely put together, and has blackish straggling roots projecting from the sides; the fourth is unusually deep, and is formed of roots, fibre, and wool, with a few white hairs towards the interior; the fifth is a very ragged construction, formed of coarse bleached roots, lined with fine fibre and wool; no two of these nests therefore exhibit a similar aspect. Most nests which I have obtained of the Yellow Bunting have been largely made up of very coarse dead grasses, especially round the rim of the cup; but last year I found a nest with three eggs, at Box Hill, on the 12th August, from which this coarse edging was entirely absent, giving it somewhat the appearance of a large and very untidy nest of the Blackcap.—ARTHUR G. BUTLER (10, Avington Grove, Penge).

The Siskin in Ireland.—The statement of Thompson, that in Ireland the Siskin has only been noticed as an occasional winter visitant, requires to be corrected. Mr. Barrington found a Siskin's nest near Bray in 1866, and I am able to record other instances of its breeding in Ireland, noted as far back as 1855. At that time I was familiar with these birds, having shot some and sent them to be stuffed. On June 7th, 1856, I saw five undoubted Siskins by the Bride River, and my journal shows frequent notices of Siskins, in April, May, and June, especially in 1857, when I noted Siskins on April 3rd, 15th, 18th, 21st, 22nd, 26th, 28th, 29th, May 1st, 2nd, 3rd, 5th, 6th, 9th, 11th, 15th, 18th, 21st, June 12th. On the said 22nd April, 1857, I saw three pairs of Siskins, and discovered the nest of one pair by watching them; it was in an upper lateral branch of a Scotch fir on the outskirts of a plantation here. On the 28th April I climbed up to it, and while I did so both the Siskins came and hopped about on the tree, uttering cries of distress; they then forsook the nest, in which no eggs had been laid; it was almost entirely composed of moss, but was not lined at the time. Coming to the year 1882, on June 8th I was attracted by a Siskin singing on the wing, and saw three or more among the firs above this house. I saw two on June 17th and one on the 24th.

On July 2nd and 3rd I saw a family of five Siskins in my hill-plantation. This year (1883) Siskins frequented the grounds close to this house; I saw the male and female on June 30th and July 3rd, 8th and 9th. On the 3rd July I pointed out the male to the Rev. Mr. Flemyng, and on the 8th both birds were feeding for some time among the meadow herbage, about twenty yards from the table where I write, while I watched them through an opera-glass. On the 29th this pair of Siskins, evidently, appeared with their young ones, for I saw five, including young birds, flying about the haunts of the old pair. I have made special notes of the appearance of the Siskin here in the breeding season, having seen it mentioned in books of Natural History as a winter visitant: at the latter season it appears here in small flocks. Still it is not a bird that one may reckon on finding at all times, like the Goldfinch; it will disappear unaccountably, and when I begin to fear that it has forsaken the locality, it appears again as unexpectedly. Its eggs I have never taken. Of its habits in the breeding season I wrote in 1858 as follows:—"In April and May, 1857, Siskins were unusually common at Cappagh in the woods of fir, both on the low ground and on the hill-side; in fact, the woods were continually ringing with the song of this bird. You might hear it as it flew over the wood uttering its peculiar cry, half chirp, half song; at one time flying straight forward, as if to some destination, then turning and making a circuit, as if it did not know its own mind, or as if it were loth to descend from its joyous flight, then again darting off in a new direction, whilst its notes would gradually die away. Its every tone and movement is full of animation and delight, as if it were beside itself with pleasure: this is particularly the case in the nesting season, at which time I have seen the male flying slowly towards some topmost spray of a fir tree, pouring forth his delightful little warbling song, which very much resembles that of a Goldfinch, but is to my ears far sweeter. It very often sings when flying, but more frequently when perching on some fir-tree top; indeed the Siskin in spring seems more like a visitor from a happier world. On the 29th May, 1880, the late Professor Leith Adams, who was staying here, saw several Siskins. He remarked them particularly about the tall spruce and silver firs to the north of the garden, into which trees I saw the Siskins fly that I observed so often early in July last.—R. J. USSHER (Cappagh, Co. Waterford).

Siskin in Co. Down.—I recollect, at least twice, getting young Siskins just taken from the nest and rearing them. I was then living in the County Down, and got the birds from Creighton, the gamekeeper at Tollymore Park, an intelligent and keen observer of birds. I also remember seeing the birds with him, and which he told me he had reared himself from the nest. I never found the nests myself. This was probably about the year 1858.—W. E. L'ESTRANGE DUFFIN (Whitechurch House, Co. Waterford).

Common Scoter inland.—It may interest some of your Lancashire readers to know that on October 25th I received from one of our game-keepers in that county a very fine old male Scoter, *Edemia nigra*, minus one foot, with a note stating that the bird was "caught" probably in a "pantle," or snipe-snare, on the mere in Tarleton, on 22nd inst. I do not know if this species is as common on the Lancashire coast as in other parts of England; the so-called "mere" is not far from Southport and the estuary of the Ribble, but by the sending of this bird to me it seems that it is considered a rarity even at the short distance that Tarleton is from the tidal waters.—LILFORD (Lilford Hall, Oundle, October 26, 1883).

Rare Birds in Sussex.—A Spotted Redshank, *Totanus fuscus*, was shot in August, in the Winchelsea Marshes, and is now in the possession of Mr. Thomas Sorrell, of Hastings. The bird is in the autumn plumage so well figured in Dresser's 'Birds of Europe.' Mr. F. Bucknill informs me that, when shooting in the Nook at Rye on Sept. 3rd, he saw three birds which were quite unknown to him; from his description, they could have been nothing else but Black-winged Stilts, *Himantopus candidus*. I know the species well, having obtained specimens in Egypt; still great doubt remains in my mind as to the identity of the birds in question. The Spotted Redshank has before now been erroneously recorded as the Stilt (Zool. 1872, p. 3864), and the fact of *Totanus fuscus* having been—as stated above—obtained in the Winchelsea Level, in the month of August, makes their identity, I fancy, still more doubtful.—THOMAS PARKIN (Halton, Hastings).

[The birds may have been Avocets. Both being black and white, with long legs, Avocets and Stilts may be easily confounded at a distance.—ED.]

Rare Birds in Cornwall and Scilly.—There are at present in the hands of our taxidermist, Mr. W. H. Vingoe, for preservation, a specimen of Bartram's Sandpiper, killed at St. Keverne, near the Lizard, in October last; also a Pectoral Sandpiper, shot at Scilly; a Spoonbill, a bird of the year, procured on St. Germans River, near Plymouth; a Hawfinch from Scilly, where it is exceedingly rare, there being no cover for it.—THOMAS CORNISH (Penzance).

[We should be glad of further information respecting the American Sandpipers.—ED.]

Late nesting of the Nightjar.—I have never found eggs of this species quite so late in the season as the dates mentioned (pp. 380, 429), but I have several times taken them in August, from the 6th to the 9th, and on one occasion I found two quite fresh-laid eggs on the 12th, whilst those taken on the earlier dates were more or less incubated. In my old ramblings for insects about the heaths and woods of this neighbourhood there is no bird with which I was more familiar than the Nightjar, and

many a time have I watched its feigned lameness in trying to lure me from its eggs or young, which latter are, I think, some of the oddest little things to behold, with their enormous mouths, large eyes, and ruffled plumage, as they squat on the ground, as helpless as they are peculiar in appearance. It has often struck me that a bird like the Nightjar, which nests on the bare ground, and frequently in an open space where no protection seems to offer itself, must have many foes against which, both directly and indirectly, to contend—the feet of passing men or grazing animals, not to mention rats, stoats, and a host of other enemies—from which a species nesting in a tree is comparatively secure; and yet this very exposure is often the surest safeguard, especially when under the watchful eye of the parent bird. I recollect on one occasion, in the dusk of evening, seeing a Nightjar buffeting its wings in the face of a cow that was quietly feeding upon the heaths, and at first imagined that the bird was feeding upon the moths which had been roused by the movements of the quadruped, but on approaching more closely I saw the cow turn from its proposed course, and the bird immediately left it. Next evening I went to the same place, and found two eggs of the Nightjar within a few feet of the spot where the cow had turned out of its way. The eggs I left, and in due time they were hatched, but when the young were only a few days old they altogether disappeared from the place, and were, as I supposed, either taken or destroyed. About a week after, in passing the same place, imagine my surprise at seeing the old bird act its feigned lameness, and finding what I suppose were the same young ones, considerably grown, just where the eggs had formerly been. Of course I am not sure they were the same, but it seemed probable; and if they were, how did the parent bird remove them from one place to another? Having no nest, one bare spot upon the heath would answer their purpose as well as another, and yet it seemed strange they should return to their birth-place.—G. B. CORBIN (Ringwood, Hants).

Shoveller breeding in Suffolk.—At least one brood of young Shovellers were reared last spring in the marshes near Leiston, where there is a large bed of reeds. My brother saw a female bird with five young ones, “flyers,” on June 26th. They were swimming in a wide ditch close to the above-mentioned reed-bed. As he has also seen several males about, there may possibly have been more than one brood hatched out.—G. T. ROPE (Blaxhall, Suffolk).

The Plumage of the young Kestrel.—It does not seem to be generally known that the sexes of the young of the Kestrel, *Tinnunculus alaudarius*, can be distinguished in the first plumage, since a reference to the standard works on British Birds by Montagu, Jenyns, Selby, Macgillivray (‘Raptorial Birds’), and Yarrell (4th edition), would lead one to suppose that the young of both sexes resemble the adult female until after their first winter. Sir

W. Jardine is the only author who appears to have noticed any dissimilarity in the sexes of the young. That author says (Brit. Birds, vol. i. p. 146), "In the young males the head and tail have a slight greyish tinge, and the bars are more indistinct or clouded on the latter"; but here he errs in stating that the head shows any tinge of grey, for the colour of the head is similar in both sexes. My brother, Mr. O. V. Aplin, and I have observed that the sexes of young Kestrels can be distinguished at a glance directly the feathers of the tail begin to sprout. In the young female the tail resembles that of the adult of the same sex, the ground colour being rufous, with the dark bars regular, complete, and comparatively broad, while in the young male the tail from its first appearance is decidedly blue; the dark markings are much narrower than in the female, and form only irregular and incomplete bars. The blue of the tail is not, however, so pure as in the adult male, being suffused in the terminal half with rufous—more noticeable on the inner webs of the feathers. Another mark of distinction is the markings upon the shoulders and upper part of the wings, which are less distinct and regular than in the female. The rufous ground colour, also, including the tinge on the tail, is of a different red, and resembles that of the adult male. In none of the works above mentioned do I find it stated that the young, before they assume feathers, are covered with a bluish grey colour.—F. C. APLIN (Bodicote, Oxon).

Notes from County Cork.—Under the description given by Yarrell (4th edition) of the Long-tailed Titmouse, *Acredula caudata*, we read, "In Ireland it would seem to have been observed in some thirteen counties only, and in none to the south-west of Galway and Tipperary." This is not strictly correct. Although I have not myself seen this Titmouse outside Myross Wood,—from an eminence whence American steamers can be seen steaming past the south-west coast,—there are numerous representatives of the kind among the birds frequenting the place, and I gather from friends that they have seen it in different localities in South-West Cork. When out shooting pigeons (*Columba livia*) on October 10th, as we were rowing under the ocean cliffs east of Glandore Harbour, I was surprised to see a Kingfisher fly from the foot of the rocks and skim over the great waves rolling in from the Atlantic. Among the birds observed in our excursion were two Peregrine Falcons high in the air over a lofty cliff called "Fil-na-Shuk,"—i. e. the Hawk's Cliff,—and very appropriately, as it is nearly always frequented by hawks, generally Kestrels. Two Choughs were also flying about over the same cliff, now and again making sudden drops and uttering their "chuf, chuf." As our boat neared some rocks we startled two Oystercatchers, *Hamatopus ostralegus*. Gulls were about in considerable numbers, and we met with Curlews, *Numenius arquata*, all along the shore. Nine or ten Shags, *Phalacrocorax graculus*, including a good many young,

were noticed on a rocky islet. A single Whimbrel, *Numenius phaeopus*, was seen feeding on the rocks. Making for a famous pigeon-cave in a break of the rock-bound coast, called Tralong Bay, another Kingfisher, a very handsome one, was descried, and I was anxious to secure it, but it completely baffled us. Our boatman called it a "Wood-picker," and every now and then, in the course of our unsuccessful chase, would ask, "Is the Wood-picker a skilful bird, sir?" By "skilful" he explained that he meant clever at concealing itself, like a Snipe. Our bird probably betook itself to a hole in the rocks, a usual expedient of the Kingfisher. Arrived at the pigeon-cave we put fifteen or twenty pigeons on the wing, of which we bagged not more than five. We then visited another cave, also reputed to be well stocked with pigeons. We found but one bird here, a disappointment somewhat made up for by an exploration of the cavity in which we found ourselves. The cave-tunnel runs in fully a hundred yards under the ground till it meets a vertical shaft bringing down the light of day to a boiling vertex, where the inrush of the sea finds its onward progress checked. In stormy weather the furious agitation of the waters is said to furnish a grand and impressive spectacle to an observer venturous enough to watch the scene of turmoil down the shaft. Sea-spleenwort, *Asplenium marinum*, grows on the upper part of the cave's sides towards the mouth, completely lining the rock, where fresh water was trickling down in the roof. I saw the first Redwing this year on October 5th, flying over a wood in company with four Mistletoe Thrushes; the latter are very common just now; since the 5th I have seen fourteen or fifteen.—C. DOXOVAN, JUN. (Myross Wood Leap, Co. Cork).

Early appearance of Wigeon.—Apropos of a note on this subject (p. 424), the following may be interesting:—The 1st of August in this neighbourhood is looked forward to with some degree of interest by the sporting community, whose chief object is to slaughter the numerous wild-fowl which frequent the river, but whose longings are happily held in check by the Wild Birds Protection Act till the above date. A friend of mine informed me that in the early morning of the first day's shooting he heard what he thought was the distant note of Wigeon passing high overhead; and this supposition was subsequently confirmed, for in the evening of the 4th or 5th August he saw two Wigeon killed out of a flock of three. Last season I saw several Wigeon which had been killed on the river exposed for sale in the first week of September, which I thought early for the species so far south. Whilst on the subject of the appearance of Wigeon in summer, I may state that in June, 1880, a cow-boy came to inform me that in driving his cows near the river he had on several occasions seen a very handsome duck fly out of the rushes, and had tried to kill it with his catapult. Seeing a male Wigeon in a case, he pointed to it, and said "That is the sort of duck I mean," about which, of course, I thought he was mistaken; but not

many days after he brought me a rather small Wigeon, which he said he had killed with the before-mentioned catapult. It was a male, in rather bright plumage, but thin and meagre in body, and looking very much as if it had been on "short commons." I concluded that it had been injured, and was unable to follow its companions northward at the proper time, and consequently had skulked about and obtained a precarious livelihood amongst the rushes at the river's edge, although it could undoubtedly fly, but possibly not a long distance. I did not, and do not, for a moment suppose that this species ever breeds in the Avon, although a gentleman told me a few years ago that eggs of the Wigeon had been taken in Dorset, on the banks of the Stour; but on looking through his entomological collection I saw several species of moths—of extreme rarity in Great Britain—*said* to have been taken in the same neighbourhood; I suspect therefore that, as the moths originated from Southern Europe, the Wigeon's eggs probably came from the opposite direction.—G. B. CORBIN (Ringwood, Hants).

Food of the Carrion Crow and Magpie.—An old disused bridle-gate standing near one corner of Clattercutt Reservoir has this season served as a feeding spot for a pair of Carrion Crows, which reared their young in a tall elm on one side of the pool. One evening in June, after the grass was cut, I found strewn round it the remains of several toads and frogs, and of one partly fledged nestling finch, also a number of broken shells of the eggs of the Wild Duck and Partridge. The state the gate was in showed that it was a much frequented perch, and a tell-tale wing-feather would have named the robber even if he had not hurriedly left an adjacent tree at my approach, and with loud croaks expressed his displeasure at my intrusion on his banquetting hall. I have always tried to defend this fine bird, and was sorry to find such ample proof of its destructive habits. Only a few days ago (October, 1883) I counted thirty-two Crows in a stubble-field close to this village, and considering their abundance in the district, it is only a wonder that any game or wildfowl can rear their young at all. As an additional illustration of the voracity of the Magpie to that given by Mr. Gurney (p. 355), I may mention that during severe weather in December, some years ago, I was one morning shooting Fieldfares as they came to feed in the thorn-bushes, and hearing a loud screaming from the adjoining fallow, I looked over the hedge, and saw a Magpie repeatedly pouncing upon some bird on the ground in the middle of the field, and which screamed pitifully at each swoop. The Magpie was off directly, and going to pick up the victim I found that it was a Fieldfare, with a broken wing, and which would no doubt have been soon despatched in its helpless condition.—OLIVER V. APLIN (Great Bourton, near Banbury).

Gulls in the Watershed of the Liffey.—During the winter half of the year four species of gulls spend a considerable part of their time inland.

The Black-headed Gulls, which in this district are not so common as the Herring and Common Gulls, I think I have only seen in company with one or other of the latter. Small flocks of the Common Gull, usually composed of half-a-dozen to a dozen birds, are very regular in the cold weather, winging their way to their chosen feeding grounds. They come in during frosty weather when it is also foggy. In such weather I have frequently heard their cries as they pass over Dublin, about sunrise, in the months of December and January. In the country around Lucan, in the Phoenix Park, and near Straffan, I have frequently observed them flying back in the direction of Dublin Bay towards evening. This species, in this district at any rate, prefers ploughed fields rather than grass-lands. Occasionally I have seen large flocks of them near here, generally soon after ploughing has commenced in October. The Herring Gull is the most numerous of the gulls that visit us, as well as the one that comes most frequently, and is consequently the best known by the dwellers in the country. When living at Lucan, a few years ago, I used often on frosty mornings to feel confident that I should see large flocks of these gulls in certain fields which they were partial to, and I was seldom disappointed. They used to make their first appearance for the season—just as they do here now—as soon as ploughing had begun. How they knew when the plough had commenced to turn up worms for them has always been a mystery to me. I never could discover where any solitary individuals or small flocks came first to spy out and report on the matter; but doubtless the same sort of instinct that brings the Kittiwakes back to Lambay Island, with extraordinary regularity, the last week of May, directs with similar exactness the movements of the Herring Gulls. In the hard weather, when ploughing is mostly over, the flocks of Herring Gulls frequent persistently, morning after morning, the same favourite meadows or pastures, and yet do not visit some adjacent fields. At times they wander a good deal throughout the day. In mild weather their appearance inland is uncertain; sometimes none are to be seen for a number of weeks, and then they unaccountably reappear. As an instance of this, I may mention that a note in my diary, dated February 24th, 1878, records the appearance of a large flock of Herring Gulls on that morning at Esker, near Lucan, after they had been absent for several weeks. The morning was fine and bright, after a rainy night. A return of frost in the early part of the year almost invariably brings them up country again. I have rarely seen them returning to the coast in the evening, and have never yet observed them flying inland in the morning, but I have once or twice remarked them to be in the fields as soon as it was light enough to see them. Whether they remain during the night I am not able to say, but I am inclined to think not. The other gull coming inland here, the Lesser Black-backed Gull, is curiously different in some of its habits from the last-named species, to which it is pretty closely allied.

I have only once observed it inland in the winter months. This was about the middle of November last year, when I saw several in a field near here in company with some Common Gulls; there was frost at the time. It is much less numerous than the other gulls, but may possibly occur more frequently here in winter. At any rate, it does not appear to be the usual habit of this bird to come inland here in winter to feed; in the spring, however, from about the first week of April until nearly the end of June, when one would expect these gulls to be at their nesting quarters, a pair or a single one in adult plumage may be seen almost every day flying up the Grand Canal, at no great height over it. I have seen them following the Canal at several places between here and Dublin, as well as in this neighbourhood, and have frequently watched them flying back seawards in the evening. At the same season a few of these gulls may also be seen frequenting the river in the city among the shipping, and I recollect having once in spring seen about a dozen—the greatest number I ever saw together—flying about over the Custom House Docks, and resting on the roofs of some adjacent sheds. Perhaps those we see here in the breeding season may be barren birds; but it is remarkable that the time one would expect them to be away at their breeding haunts is the only time we have them in the parts frequented by the Herring Gulls in the winter. So far as my experience goes, the Lesser Black-backed Gull is at no time common on the Dublin coast. Once (on April 6th, 1879) I met with four near Malahide; they were flying northwards, following the shore-line, and were well within gunshot. They passed a group of Herring Gulls on the sands, and neither appeared to take any notice of the other; and on the 2nd June, in the same year, I watched for a long time a pair of these gulls sailing about in the air along with large numbers of Herring Gulls, on the east side of Lambay. I expect they were nesting there, and may have been put up from their nests by us, as were a great many Guillemots, Razorbills, Herring Gulls, and Puffins; but there was little likelihood of that point being settled in the too limited time at our disposal, for the Lesser Black-backed Gulls remain on the wing for a long time. They seem to be perpetually on the wing; I have rarely seen them alight. This is a point, too, in which these birds are strikingly different from the Herring Gulls, the latter spending most of their time, whether on the sands or in the fields, standing in large groups with a stately and dignified composure.—J. E. PALMER (Lyons Mills, Straffan, Co. Kildare).

White-tailed Eagle in South Lincolnshire.—On November 2nd an immature specimen of *Haliaëtus albicilla* was shot in South Lincolnshire. It is a male in dark plumage, with dark mottled tail. It was in good condition, but the maw was perfectly empty. The measurements are—total length from tip of bill to end of tail, 3 ft.; expanse of wings, 7 ft. 2 in.—J. CULLINGFORD (University Museum, Durham).

Notes on the Ornithology of Northamptonshire.—The first Woodcock of the season in this neighbourhood reported to me was seen by one of Lord Lyveden's gamekeepers on October 16th; since that date we have heard of several, but only seen one killed Nov. 8th. A Spotted Crake, *Crex porzana*, male, was shot near Thrapston, Oct. 23rd, by one of our gamekeepers, who told me that he had often seen these birds in our upper meadows without shooting at them, as he did not know that they were "fit to eat," or of any interest to us (*vide* p. 467). Is not the above an unusually late date for this species in a district where it is certainly not resident in the breeding season? A male Merlin, *Falco aesalon*, came up to one of our Tierceels who was "waiting on" over a piece of turnips near Titchmarsh, Oct. 24th, and appeared curious as to his views and intentions, circling round him for a few minutes; but as we sprung no Partridge, and the small birds kept close, the little hawk evidently thought the concern "not good enough," and sailed off to the southward to hunt on his own account. Since the last date we have seen and heard of several Merlins hereabouts. On Oct. 24th the first Water Rail, *Rallus aquaticus*, of this season, was shot by one of our gamekeepers in our upper meadows. The numbers of this species in this neighbourhood vary greatly in various seasons; but though we never met with, or heard of, a Water Rail's nest in this portion of the Nen valley, we have recently received information which leads us to believe that these birds do occasionally breed with us. On Oct. 26th, Mr. William Seale, a well-known London birdcatcher, who was staying here for catching common small birds as food for our Raptores, assured us that on this day he saw two Richard's Pipits, *Anthus Richardi*, near Thorpe Station, L.N.W. Railway. Seale is perfectly well acquainted with this species, of which he has taken more than one in his nets, and I have no doubt whatever as to his accuracy in this matter. This is the first occurrence of this species in this county that has come to my knowledge. A flock of some forty Siskins, *Chrysomitris spinus*, appeared amongst the alders on our river-bank, at a short distance from this house, during the week beginning Oct. 21st; seven of them were taken by the auceps above mentioned, and are now in our aviary. This is, in my experience, a very unusually early arrival of this species in this district. On Oct. 27th I received a letter from Sir Rainald Knightley, Bart., informing me that he and Lady Knightley had observed a Hoopoe, *Upupa epops*, at Fawsley, near Daventry, on Sept. 24th, 1878. On Oct. 30th, Mr. J. Eayrs, of Kettering, brought for my inspection a fine specimen of a young Cormorant, *Phalacrocorax carbo*, stuffed and maltreated in a glass-case by a local mangler of birds. This bird was killed near Brigstock early in September last. On the above mentioned day several Swallows, *Hirundo rustica*, were observed about Wadenhoe House by Mr. Hunt and Lieut.-Col. L. H. Irby. On November 1st the first Bramblings, *Fringilla montifringilla*, of this

season seen by us. As we have no beech-mast hereabouts this autumn we shall see very few Bramblings. We have had a small arrival of Snipes and Jack Snipes during the first week of November, also a few Teal, *Anas crecca*; and, as usual when the latter bird appears with us, a Falcon, *F. peregrinus*, haunting our Nen valley for some time past. Fieldfares appeared in force about Nov. 8th: previously to this date we had only observed a few stragglers of this species. About the above-mentioned day a very large flight of *bonâ fide* travelling Wood Pigeons, *Columba palumbus*, visited one of our oak plantations, but very soon took their departure. On Nov. 14th I am convinced that I heard the well-known "wail" of a Buzzard, *Buteo vulgaris*, high in air over Great Wadenhoe Wood, where I was shooting with Mr. Hunt and his party. This bird is now of exceedingly rare occurrence in our county, though formerly common enough. It is possible that the cry was produced by a Jay, of which there were many in the wood; but we have as yet had no immigration of this species, and I do not know where our home-bred Jays could have learned such a perfect imitation of the Buzzard's cry. However, on this possibility I must refer your readers to my "Notes on the Ornithology of Spain," in 'The Ibis' for April, 1866, p. 175.—LILFORD (Lilford Hall, Oundle, Northamptonshire, November 15, 1883).

Habits of the Little Grebe.—In 'The Zoologist' for November (p. 466) Lord Lilford describes the thrice-repeated voluntary flight of a Dabchick, *Podiceps fluviatilis*, and adds that he "never before the above occurrence saw one rise and fly from thick covert, unpressed by a dog." It is a curious coincidence that, the very day after reading Lord Lilford's notes, I myself saw two Dabchicks rise and take wing, nearly, but not quite, simultaneously. While Snipe-shooting on the 3rd I had to follow the banks of a broad stream for some 400 yards in order to pass from one part of my beat to another, and, as I advanced, I saw at intervals what looked like the rise of a trout, sometimes close under the bank, sometimes in mid-stream. On coming to a point where I intended to diverge, I stopped for a moment on the bank of the stream, when up rose a Dabchick and flew up stream. I sent a cartridge of No. 11 after him; but fearing that this dust-shot would not kill him, I repeated it quickly, when a second Dabchick rose from the opposite bank and flew off. This is the first time that I ever saw a Dabchick on the wing, though my snipe-shooting years, I am sorry to say, extend through half a century. The bird I shot was one of the year.—W. OXENDEN HAMMOND (St. Alban's Court, Wingham, Kent).

Hybrids among Birds.—As instancing the interest now taken by bird-keepers in producing hybrids between our British Finches, I may observe that in the 'Live Stock Journal' of October 12th last a well-known exhibitor of cage-birds, Mr. T. Beasley, of Northampton, offers for sale four hybrids between the Goldfinch and Bullfinch, two hybrids between the

Bullfinch and Linnet, and one hybrid between the Linnet and Lesser Redpoll. These appear to be his surplus birds; probably he retains other examples. Mr. Scott, of Carlisle, tells me that at least three hybrids between the Goldfinch and Siskin are possessed by bird-fanciers; one of them was in his possession until a few weeks ago. The hybrid between the Lesser Redpoll and Bullfinch mentioned (p. 339) belongs to Mr. Scott, and was bred in the South of Scotland in 1881—not in 1882, as I supposed; it was hatched from a large series of eggs obtained from a male Redpoll and female Bullfinch, and was brought up by a female Canary. This bird is rather larger than the ordinary race of Lesser Redpoll, and in shape resembles a Bullfinch; the crown of the head, the throat, breast and under parts are of a prettily shaded pink; the occiput is dark grey; ear-coverts silvery grey; back ashy grey, streaked with dark brown; wing-coverts grey, tinted with red; the rump is white, tinged with pink; the tail and wing-quills are black; the flanks are streaked with black; the beak is horn-coloured at the base, black at the extremity. Mr. Scott has now two male Bullfinch and Goldfinch mules of his own rearing; he has also bred a hybrid between the Bullfinch and Greenfinch in confinement. The hybrids between the Bullfinch and Goldfinch are comparatively sober in colour during the first year, but become brighter in successive annual moults. A female of my own used to imitate the "pink, pink" of the Chaffinch very prettily: a cat slew her during my absence from home.—H. A. MACPHERSON (Carlisle).

Ring Ouzel in Suffolk.—While walking along the River Alde, near Snape Bridge, on October 18th, I saw a pair of Ring Ouzels, a scarce bird in this district. They were first seen on a bramble-bush, apparently feeding on the berries. Owing to their remarkable tameness, I was enabled to get very close to them, and to follow up and watch them for some time. In April, 1880, a pair of these birds frequented for some time a piece of furze-covered ground near Leiston, in this county.—G. T. ROPE (Blaxhall, Suffolk).

Partridges and Pheasants in the Scilly Isles.—Partridges have been repeatedly introduced in the Western Islands, but have, as repeatedly, all made their way to St. Martins, the easternmost island nearest the mainland, and from thence have disappeared. Pheasants have, on the other hand, taken to the islands in a very kindly manner, but do not grow to any size.—THOMAS CORNISH (Penzance).

Osprey in County Durham.—On October 23rd I received another specimen of the Osprey, which was shot the previous day close to the city of Durham. This, like the last received, was a male, and a bird of the year. It weighed three pounds and a half, and measured twenty-two inches and a half in total length, and five feet seven inches in expanse of wings. In my report of the former one, in the last number of 'The Zoologist,'

(p. 471), by some carelessness of mine, the expanse of wings is given as five feet, whereas it should have been five feet eight inches—just one inch longer than the one since obtained.—J. CULLINGFORD (University Museum, Durham).

Jack Snipe in Oxfordshire in Summer.—Mr. Wyatt, taxidermist, Banbury, recently showed me a Jack Snipe which he received about the end of July. It was brought in by a boy, who picked it up dead near Banbury. From a wound on its head it appeared to have struck against the telegraph-wires. It was in a very emaciated condition, and I fancy must have been an injured bird unable to migrate in spring.—OLIVER V. APLIN (Great Bourton, near Banbury).

FISHES.

Habits of the Pilchard.—In the latter part of the season for Pilchards (October and November) the shoals come from the eastward into St. Ives Bay, and pass thence off St. Just, round the Land's End, into Mount's Bay and the English Channel. A friend much interested in the Pilchard fisheries on the north coast of Cornwall (Mr. G. R. Pollard, of Bodieve, near Wade-bridge), writes me that the fish yearly arrive off the headlands and in the bays at and on either side of Trevose Head, near Padstow, coming *from* the westward, and that, after a pause there, they break up into small shoals and go *to* the westward. He curiously confirms an old belief in the following words:—"If ever so large a quantity of Pilchards appears to be in the bay, if it comes to thunder and lightning, they are never seen after." We attribute the same result to the firing of cannon at the batteries, and I have myself seen dynamite produce the effect. Mr. Pollard also sends the following exceedingly interesting and curious note:—"There is another curious thing connected with Pilchards—after they are in shoals they appear to keep to their own party. Eleven years since our 'huer,' seeing shoals of fish passing, put the master seiner on them; he directed the seine-boats to shoot the seine, but the men made a bungle of it, and got her fouled in getting over the side of the boat, and were so long about it that they only secured the end or latter portion of the shoal; but there happened to be another shoal just behind, and in bringing the net around they took in the leading part of the latter shoal as well. Now we had those fish in the seine from the 23rd to the 30th of October, and those two portions of different shoals never joined or mixed all the time; we could distinctly see two spots of colour, and on 'tucking' would sometimes get one and sometimes the other." Capt. W. Eddy, a mine-agent of great experience in West Cornwall, and also well acquainted with Pilchards and their fisheries, spent several years in managing some mines between Skibbereen and Baltimore, in the southern corner of Ireland, and overlooking the sea. Here he observed

that in every September, which is about six weeks to two months before we expect the large shoals from the north-west to strike our Cornish coast, vast quantities of Pilchards would be lying about amongst the numerous islands off the coast, accumulating apparently before their final start for the deep sea. The few fishermen in the neighbourhood were only interested in Herrings, and when, as they occasionally did, they caught a netful of these Pilchards, they threw them away as useless. This note, coupled with my former one (p. 431), points to two sources of Pilchard supply—one from the deep seas south and south-west of Scilly, which gives us our summer supply in the English Channel; and the other from the deep sea on to the south-west coast of Ireland, whence they furnish us with our winter supply in the Bristol Channel.—THOMAS CORNISH (Penzance).

On the occurrence of *Paralepis coregonoides* in Cornwall.—In the September number of 'The Zoologist' (p. 381) I gave an extract from the Journal of the late Mr. J. Couch, which rendered it almost certain that an example of *Paralepis coregonoides* had been captured in Cornwall on June 2nd, 1869, by Mr. Matthias Dunn. I have now the pleasure of affording conclusive proof of this, for on a recent visit to the new Natural History Museum, South Kensington, Dr. Günther showed me the identical specimen in spirit. The species therefore must be admitted among the rarer wanderers to the south coast of England.—FRANCIS DAY (Cheltenham).

Long-nosed Ray in the Ouse.—On November 16th, I noticed what I believe was a Long-nosed Ray, *Raia rostrata*, hanging up in a fishmonger's shop in Praed Street, Bayswater. It was remarkable that it was taken in the River Ouse, near Bedford, some sixty or seventy miles from the sea, and weighed 143½ lbs. According to Yarrell, it is a deep-water fish.—FRANCIS P. PASCOE (1, Burlington Road, W.).

On some newly observed Habits of *Ceratodus Forsteri*.—Of twelve specimens of this fish, procured by Mr. Morton in the Mary River, Queensland, one was taken in a net, the others were trapped by the blacks by being forced through a narrow passage in the river formed by a kind of brushwood. He noticed a curious circumstance as regards their habits. At the time of his visit a number of *Eucalyptus* trees were in full flower by the banks of the river, and as the blossoms dropped into the water they were eagerly seized and swallowed by these fish. The stomachs of each of the specimens captured were literally crammed with these flowers. An old resident told Mr. Morton that during June to August these fish go in pairs; that they make slight indentations in the muddy bottom in from six to ten feet of water, in which the spawn is deposited; that the male and female fish remain near the spawn, and are not then easily disturbed; that they frequent the same place every year, and that the spawn is frog-like. He had

taken it and hatched it in a tub of water, keeping the young alive for some weeks.—W. MACLEAY, Proc. Lin. Soc. New South Wales, July 17, 1883.

MOLLUSCA.

Slugs in Co. Waterford.—One of the most valuable consignments of living slugs that I have lately received, in furtherance of my desire to investigate the range and variation of this interesting group of mollusks, is one that was sent me on the 21st September last, by my friend Mr. J. H. Salter, of Newtown School, near Waterford, which included numerous interesting varieties, two of them new to Britain. All the specimens sent were collected in Co. Waterford, and within a couple of miles of the city of Waterford. The two new British varieties are *Testacella Maugei*, var. *viridans*, and *Arion ater*, var. *bicolor*. The *Testacella*, of which two specimens were sent, was collected in a nursery-garden, and I believe that this is the first occasion on which the species has been authoritatively and certainly placed on record for Ireland. It is quite true that it has been before reported, but there seems to have been room for doubt, and Thompson, in his Irish Catalogue, stated that he had not been able to verify the reports. Of course it had no doubt been imported from other stations. The variety *viridans*, to which three specimens belonged, is the one which, according to Morelet, is the prevalent form in Portugal, having the back a greenish brown or bronzy hue and the foot brilliant orange. I have also great pleasure in bringing forward, as an addition to the British list, the handsome variety *bicolor* of *Arion ater*, of which there were numerous specimens. These were collected in a very wet part of a small bog at Ballygunner. This variety is analogous to the black-and-white form which Mr. Ashford and I found near Trefriw and Bettws-y-Coed, and which I named *albolateralis*. My var. has the sides snow-white and the back deep shining black, the colours being sharply defined at their line of contact. In like manner, the delicate primrose-yellow of the sides and handsome chocolate-brown of the back of *bicolor* are sharply defined. In addition to these interesting forms, Mr. Salter's slugs included very deep (almost black) chocolate-brown examples of *Arion ater*, and a number of specimens of *Arion hortensis*. Of *Amalia marginata* there were several, and this species was of two forms of coloration, dark and light. The dark specimens, Mr. Salter tells me, were from a garden; the others from under stones by the river. The specimens of *Limax maximus* were of the typical form, and so were the numerous adult specimens of *L. flavus*, but one of the juvenile examples of this latter species was decidedly the blackest that Mr. Taylor or I ever saw, with scarcely a trace of the yellow ground visible. One specimen of *L. arborum* and numerous examples of *L. agrestis* complete the enumeration of the slugs sent; but I may also add that Mr. Salter included a large number of examples of *Zonites cellarius* and one of *Limnæa*

palustris. He has kindly promised to collect slugs for me in other Irish counties to which he has access, particularly in Kilkenny, and I should be pleased if residents or visitors in other parts of the kingdom would follow his example, and so expedite the task of working out in detail the variation and distribution of the various species throughout the counties of the British Isles.—WM. DENISON ROEBUCK (Sunny Bank, Leeds).

SCIENTIFIC SOCIETIES.

LINNEAN SOCIETY OF LONDON.

November 1, 1883.—FRANK CRISP, Esq., Treasurer and Vice-President, in the chair.

Messrs. A. Hutton and T. E. Gunn were elected Fellows.

A donation to the Society of several interesting letters of Linnæus (1736—1769), addressed to G. D. Ehret, F.R.S., an eminent botanical artist of the last century, was announced by the Chairman, and an unanimous vote of thanks thereupon accorded to the Misses Grover and Mr. Charles Ehret Grover for their valuable donation.

Mr. Crisp drew attention to specimens, in fluid medium, of *Limnocoedium Sowerbii*, as illustrative of Mr. P. Squire's method of preserving delicate *Medusa*.

Mr. W. Fawcett exhibited live specimens of *Testacella Maugei*, obtained in Dorsetshire by Mr. J. C. Mansel Pleydell, and supposed to be indigenous to that county. Mr. Fawcett asked for information on its distribution and habits, the other species found in the British Isles (*T. haliotideae*) being distributed from the Canary Islands to France, but said to be only naturalised in the South-West of England and South of Ireland; while *T. Maugei*, with much the same range abroad, and reported frequently as being found at Clifton, was not considered to be even naturalised, it was asked why both species should not be considered indigenous. With regard to the habits of this shell-slug, Mr. Gwyn Jeffreys speaks of its rivalling the tiger, snake, and shark in its ferocity and cunning in search of earthworms.

A paper was read "On the changes in the Flora and Fauna of New Zealand," by Dr. S. N. Curl, in which he dealt more particularly with the plants, but remarks on the native Black Rat being destroyed by the imported Brown Rat, and to the gradual disappearance of Lizards and Pigeons.—J. MURIE.

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JANUARY, 1883. [VOL. VII., No. 73.

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DELECTANDO PARITERQUE MONENDO.

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(4) All letters relating to the non-delivery of 'The Zoologist,' through mis-carriage in the post or otherwise, the purchase of back numbers, and so forth, should be addressed to Messrs. WEST, NEWMAN & Co., 54, Hatton Garden.

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
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On the Migration of the Common Jay, *John Cordeaux*, 1.
 Field Notes in Norway in 1881, *Rev. H. H. Slater, F.Z.S.*, 4.
 Natural History Notes from Aldeburgh, *H. A. Macpherson*, 14.
 On the Treatment of Snakes in Captivity, *Arthur Stradling, C.M.Z.S.*, 18.

NOTES AND QUERIES.

The Natural History Museum, South Kensington, 24. The British Association, 24. Proposed Museum for Shrewsbury, 25. Russian Endowment of Scientific Research, 25.

MAMMALIA.—Food of the Hedgehog, *W. Hewett*, 25. The Polecat in Devon, *W. S. M. D'Urban, F.L.S.*, 25.

BIRDS.—Ornithological Notes from N. Northamptonshire, *Right Hon. Lord Lilford, F.L.S.*, 26. Ornithological Notes from the Isle of Wight, *Capt. Hadfield*, 27. Ornithological Notes from Devon, *W. S. M. D'Urban, F.L.S.*, 28. The Note of the Manx Shearwater, *Richard M. Barrington*, 28. Late Stay of the Swift in Autumn, *C. Young*, 30. Lesser Redpoll breeding near Oxford, *H. A. Macpherson*, 30. Nightingale in Ireland, *Richard J. Ussher*, 30. Red-backed Shrike and Manx Shearwater in Nottinghamshire, *J. Whitaker, F.Z.S.*, 31. Goshawk near Oxford, *H. A. Macpherson*, 31. Great Snipe in Lincolnshire, *J. Cullingford*, 31. Coot and Moorhen laying in the same Nest, *W. Hewett*, 31. On the Missel Thrush and Chaffinch nesting in proximity, *Robert Miller Christy*, 31. Hobby breeding in Oxfordshire, *H. A. Macpherson*, 32. Montagu's Harrier in Ireland, *R. J. Ussher*, 32. Great Crested Grebe breeding in Oxfordshire, *Oliver V. Aplin*, 32. Albino Common Bunting, *J. Cullingford*, 33. The Black-winged Peafowl, *J. H. Gurney, F.L.S.*, 33. Rustic Bunting near London, *Right Hon. Lord Lilford, F.L.S.*, 33. Short-toed Lark near Cambridge, *J. E. Harting, F.L.S., F.Z.S.*, 33. The Blue-tailed Bee-eater, *H. T. Wharton, M.A., F.Z.S.*, 33. The Tawny Pipit in Sussex, *Thomas Parkin, M.A., F.Z.S.*, 34. Building Sites of the House Martin, *C. Young*, 34. Gyr Falcon in Sussex, *T. J. Monk*, 34. Food of the Bittern, *H. A. Macpherson*, 35. Honey Buzzard in Lincolnshire, *J. Cullingford*, 35. Purchase of the Audubon Collection of Birds, 35. Yarrell's 'British Birds,' 35. 'The Ibis' List of British Birds, 35.

FISHES.—Swordfish on the Coast of Norfolk, *Major H. W. Feilden, R.A., C.M.Z.S.*, 35. Fox Shark, or "Thresher," off the Coast of Devon, *W. S. M. D'Urban, F.L.S.*, 36. Large Carp in Sussex, 36. Brill with both sides coloured, *W. S. M. D'Urban*, 36.

CRUSTACEA.—*Scyllarus arctus* at Plymouth, *John Gatcombe*, 36.

ARCHAEOLOGY.—Ancient Camps in Epping Forest, 36. Remains of the Irish Elk near Belfast, 37. The Royal Theriotrophium near the Tower of London, 37. Ossiferous Cave near Cappagh, Co. Waterford, 37. Shakespeare's Animal Lore, 38. Dr. Johnson on the Glow-worm, 38. The Great Auk formerly eaten in Lent, 38.

SCIENTIFIC SOCIETIES.

Linnean, 38. Zoological, 39. Entomological, 40.

NOTICES OF NEW BOOKS.

'Siberia in Asia: a Visit to the Valley of the Yenesay in East Siberia: with Descriptions of the Natural History, Migrations of Birds, &c.,' by *HENRY SEEBOHM*, 41.

'The Fowler in Ireland; or, Notes on the Haunts and Habits of Wildfowl and Seafowl, including Instructions in the Art of Shooting and Capturing them,' by *Sir R. PAYNE GALLWEY, Bart.*, 45.

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CONTENTS.

The Greater Spotted Woodpecker in Confinement, *Rev. H. A. Macpherson, B.A.*, 473.

An Autumn Visit to Spitzbergen, *Alfred Heneage Cocks, M.A., F.Z.S.*, 479.

NOTES AND QUERIES.

American Ornithologists' Union, 488. Game killed on the Railway, *Rev. H. A. Macpherson*, 490. An Ornithologist's Sling, 490.

BIRDS.—Variation in Nests of Common Birds: singular Nests taken in Kent *A. G. Butler, F.L.S., F.Z.S.*, 491. The Siskin in Ireland, *R. J. Ussher*, 493. Siskin in Co. Down, *W. E. L'Estrange Duffin*, 494. Common Scoter inland, *Rt. Hon. Lord Lilford, F.L.S.*, 495. Rare Birds in Sussex, *Thomas Parkin, M.A., F.Z.S.*, 495. Rare Birds in Cornwall and Scilly, *Thomas Cornish*, 495. Late nesting of the Nightjar, *G. B. Corbin*, 495. Shoveller breeding in Suffolk, *G. T. Rope*, 496. The Plumage of the young Kestrel, *F. C. Aplin*, 496. Notes from County Cork, *C. Donovan, jun.*, 497. Early appearance of Wigeon, *G. B. Corbin*, 498. Food of the Carrion Crow and Magpie, *Oliver V. Aplin*, 499. Gulls in the Watershed of the Liffey, *J. E. Palmer*, 499. White-tailed Eagle in South Lincolnshire, *J. Cullingford*, 501. Notes on the Ornithology of Northamptonshire, *Rt. Hon. Lord Lilford*, 502. Habits of the Little Grebe, *W. Oxenden Hammond*, 503. Hybrids among Birds, *Rev. H. A. Macpherson*, 503. Ring Ouzel in Suffolk, *G. T. Rope*, 504. Partridges and Pheasants in the Scilly Isles, *Thomas Cornish*, 504. Osprey in County Durham, *J. Cullingford*, 504. Jack Snipe in Oxfordshire in Summer, *Oliver V. Aplin*, 505.

FISHES.—Habits of the Pilchard, *Thomas Cornish*, 505. On the occurrence of *Paralepis coregonoides* in Cornwall, *Francis Day, F.L.S., F.Z.S.*, 506. Long-nosed Ray in the Ouse, *Francis P. Pascoe, F.L.S.*, 507. On some newly observed Habits of *Ceratodes Forsteri*, *W. Macleay*, 506.

MOLLUSCA.—Slugs in Co. Waterford, *Wm. Denison Roebuck*, 507.

SCIENTIFIC SOCIETIES.

Linnean Society of London, 508.

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